

AMENDMENTS TO THE SPECIFICATION

Please amend the specification by rewriting the following paragraphs, as set forth below in marked-up form.

Please amend paragraph 5, beginning on page 1, line 14, with the following amended paragraph:

[0005] Various semiconductor memories using new memory materials have recently been proposed. Many of these memories are nonvolatile but capable of high speed operation ~~at as high speed equal to as a~~ DRAM, and thus promise to be applied in the future as "next-generation memories."

Please amend paragraph 48, beginning on page 10, line 14, with the following amended paragraph:

[0048] Ferroelectric film ~~has~~does not have small variations in crystal orientation and amount of polarization because of imperfectness of its crystal. Such variations are averaged in large capacitors and thus do not present much of a problem, but become noticeable as the capacitors are made smaller. For example, when capacitor area and load capacitance are both reduced to 1/4, an average signal value is directly scaled and unchanged, while statistical variations are increased twofold.

Please amend paragraph 127, beginning on page 33, line 23, with the following amended paragraph:

[0127] As in FIGS. 1A and 1B~~18~~, signal levels "0" and "1" of the memory cells shown by the cell signals CS11, CS12, and CS13 are varied, as indicated by ● and ○. These signals are changed in a direction in which the "0" data and the "1" data approach each other as indicated by X and Δ due to data retention deterioration, disturb deterioration, and the like.

Please amend paragraph 178, beginning on page 44, line 10, with the following amended paragraph:

[0178] FIG. 5A shows an example of distribution of remaining signals when a pulse is simply dropped from a high to a low in a normal (not amplification type) cross point type. When a single reference signal is given to the most appropriate position with this example as normal distributions, an error rate is estimated to be 3×10^{-6} . However, it is very difficult to estimate such an optimum position in a design stage and generate a reference signal at the position without an error. An actual error rate is further deteriorated.

Please amend paragraph 180, beginning on page 45, line 1, with the following amended paragraph:

[0180] In this case, the distribution of "1" signals in particular is improved significantly, with the error rate reduced to 3×10^{-8} . In addition, in this case, reference signals are generated automatically, so that the above-mentioned difficulty in generating the reference signal is eliminated.

Please amend paragraph 187, beginning on page 46, line 9, with the following amended paragraph:

[0187] One of a drain and a source of the charging transistor Tcg is connected to a constant voltage node (for example Vcc), and the other of the drain or the source of the charging transistor Tcg is connected to a point connecting the capacitor C with the access transistor Ta (internal node NE).